DOCUMENT RESUME

ED 311 687 FL 018 003

TITLE CLEAR Instructional Reports Series, Numbers 1-7.
INSTITUTION Center for Applied Linguistics, Washington, DC. Center for Language Education and Research.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE 89
NOTE 27p.; Items #4 and #5 have same authors and title, but different content.
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Art Activities; *Audiovisual Instruction; *Classroom Techniques; Elementary Education; *Elementary School Curriculum; English (Second Language); FLES; Language Proficiency; Mathematics Instruction; Music Activities; National Surveys; Science Instruction; Secondary Education; *Second Language Instruction; Social Studies; Teaching Methods
IDENTIFIERS *Content Area Teaching

ABSTRACT

The complete Instructional Reports Series of the Center for Language Education and Research (CLEAR) is presented. Included are (1) "Using Video in the Foreign Language Classroom" (Ingrid Berdahl); (2) "Strategies for Integrating Language and Content Instruction: Art, Music, and Physical Education" (Carolyn Andrade, Carol Ann Pesola, and Donna Christian); (3) "Strategies for Integrating Language and Content Instruction: Science" (Patricia Chamberlain, Mary Ellen Quinn, and George Spanos); (4) and (5) "Strategies for Integrating Language and Content Instruction: Social Studies" (Melissa King, Stephen Matthiesen, and Joseph Bellino); (6) "Strategies for Integrating Language and Content Instruction: Mathematics" (Gilbert J. Cuevas, and Others); and (7) "A National Profile of Foreign Language Instruction at the Elementary and Secondary School Levels, 1987." (DJD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED311687

CLEAR Instructional Reports Series, Numbers 1-7

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

G.R. Tucker

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

FL 018 003

BEST COPY AVAILABLE

USING VIDEO IN THE FOREIGN LANGUAGE CLASSROOM

Ingrid Berdahl

Audio-visual (A-V) materials have always had an important place in the foreign language classroom. Teachers have used slides, filmstrips, and films to give their students a visual image of the country (or countries) where the language they are studying is spoken. These were travelogues, essentially. They have also used A-V materials to give students listening comprehension practice. There have been filmstrips of fairy tales done in French, Spanish and German, for example, and series of films with amusing anecdotes about fictional sets of characters. Many teachers have also rented commercial films in the language being studied, or organized fieldtrips so that their students could see currently popular films.

Since teachers have always been able to draw upon such resources, it might not be obvious that there is anything radically different about adding videotapes to their store of material. The camcorder (a combination of a camera and playback recorder in the same unit), the VCR and the television monitor, however, have the potential to transform the way teachers present the language and culture with which they are working.

What Changes Have There Been in Teachers' Access to A-V Materials?

VCRs are turning up in every corner, at home and at school. The increasing availability of equipment has meant that more and more video materials are being prepared, because there is a market for them. There are good videotapes prepared specifically for the foreign language classroom, but there are also many other materials to choose from. Teachers have access to almost all of them (provided that they carefully observe copyright regulations), and they only have to exercise their judgment about what is fitting, appropriate, and of educational value. Teachers no longer need to depend exclusively upon their school district to purchase materials for them. They can rent a film from a local video-rental store or ask their A-V specialist to tape a PBS program (for one-time use within 10 days).[1] Because videotapes are relatively inexpensive, foreign language teachers can even purchase materials using funds from the French or the Spanish club. If they have a camcorder, or access to a video camera through the school system, they can prepare their own tapes. In short, teachers have a wealth of material from which to choose and more independence in choosing it than they did just a few years ago. Teachers have an increased responsibility to be alert to good materials. They also need to have some guidelines about what they can and cannot use, and about which instructional techniques to implement to enhance the communicative content of videos.

How Can Teachers Use Video in the Foreign Language Classroom?

There are many ways in which teachers can creatively use video in the foreign language classroom. Here are some of them.

1. *Authentic materials for listening practice*

Teachers can use video to give their students more and better listening practice. Although foreign language teachers have traditionally focused on the four skills--listening, speaking, reading and writing--listening skills have often been neglected. Teachers have tended to concentrate on listening for speaking rather than on listening for understanding. They have also tended to use *language-teaching materials* that accompany their textbooks to the exclusion of almost everything else. These materials are usually carefully constructed to reflect the vocabulary and structures presented in the textbook and, while useful, are also a little stilted and artificial.

Recently, conference speakers have been urging foreign language teachers to make greater use of *authentic materials*--interviews with native speakers, excerpts from television programs, feature-length commercially prepared films, etc.[2] The idea is that since natural speech is redundant, listeners do not need to understand every word to get the gist of what is being said. The

listeners may need assistance to follow what they are hearing--a viewing guide of some kind--but they should be able to pull certain basic information from the material. One example of tapes which could be used in this way is "La Télé des Français", a series of videocassettes offered to American audiences through the joint efforts of the Université de Paris-Dauphine and Middlebury College.[3] Included in these excerpts from French television are a game show for children, a cooking lesson, and interviews with young adults who are living at home with their parents after finishing school.

Teachers who have camcorders or access to video cameras through their school systems can make their own videos. They can interview native speakers and edit the tapes afterward by re-recording the sections they want to use with their students. Children are often good interview subjects. They are relatively un-selfconscious, frank in their comments, and use simple vocabulary. Here is a summary of an interview conducted by the writer with a nine-year-old French girl who tells about how she spends her summer vacation.

> Marie-Laure first introduces herself, giving her name and age. Then she talks about the *cahier de vacances*, a summer review workbook used as a basis for a nationwide competition among students of the same grade level in France. She tells what subjects she reviews, what she must do to participate in the competition, (she must draw a picture and send a postcard to someone, among other things), and what the prizes are. She digresses at one point to tell about her goldfish--how she got it and why it finally died.

Below is a cloze exercise which students used as a listening guide when they were following Marie-Laure's remarks.

1. La petite fille s'appelle _____. Elle a _____ ans.
2. Le cahier de vacances est un cahier ou _____ _____.
3. En ce moment elle travaille _____.
4. Elle étudie _____ minutes par jour.
5. Elle aime _____.
6. Le concours des cahiers de vacances: Les règles sont de ne pas _____.
7. Les parents dovient _____.
8. Il faut envoyer une _____ à un ami.
9. Les prix sont: _____, _____, _____, _____, _____, _____, _____.
10. Comme lecture, elle préfère _____.
11. Elle avait _____ têtards. (tadpoles)
12. Ils sont tous morts parce que _____.

Since preparation is an important step for active viewing, teachers using an interview such as this one would probably want to give their students several key vocabulary words before the class started to watch the tape. The tape could be shown two times--once to give students an overall impression of the person speaking and once to have them listening for specific cloze items. Further, it is advisable to stop the tape during the viewing and replay certain segments of it. Alternatively, the interview could be divided into several segments and shown over several class meetings, so that the students weren't listening to more than they could absorb in one sitting. Teachers should experiment with different types of material and ways of breaking material down and presenting it.

Teachers should also prepare different types of viewing guides. Viewing guides also can take a multiple-choice, matching or checklist format or they can be related to a drawing. Students can be asked to listen for mood, for certain types of expressions, etc. (cf. Lonergan, 1984). The important thing is that students are listening *for* something and that they have some help in following the speaker. Various follow-up activities, such as small group discussion on a given topic, can also enhance active viewing and comprehension.

Because videotapes are relatively easy to copy, and because more and more students have VCRs at home, it may one day be possible for teachers to reproduce self-made videos (on tapes which the students provide), and give students listening assignments--to be done at home, where students can control the equipment themselves. Students could then decide how many times they wanted to replay certain sections and could work at their own pace.

In listening to a real person speak about matters which are important to him/her, students are not only getting practice understanding the language, but they are also learning about the person and his/her culture. This will help students to see the value of all the effort they are putting into their language study.

2. *Television broadcast materials for subject area content*

Another way that foreign language teachers can use video is by showing programs which relate their language to other subject areas--science, for example. This integration of language and content instruction is now considered an important question in second language acquisition.[4] Educational television productions are a good source of subject material, and they are often available for purchase or rent or for off-air taping with a license.[5] An excellent science program from PBS entitled "Battle of the Bison" features a small section of forest in Poland which has been preserved as it was in primeval times.[6] There are bison in this forest, unusual trees, and small, beautiful horses. They do not exist anywhere else, and they look like the drawings found in caves in southern France and in Spain.

For history and language arts, the segments from the PBS series "The Story of English" can be tied in with foreign language instruction. Tapes and accompanying student text material, such as study guides and readers, are available for sale.[7] This series is about English, but it is also about language--about how language evolves and changes over time and about reasons why people want or need to speak more than one language. Language, of course, ties in with everything--history, art, music. By occasionally showing such programs, teachers broaden their students' horizons and help them to feel more strongly what should be obvious--that language relates to life.

3. *Classroom video projects for student recording*

Teachers who have cameras or a television studio at their disposal can have their students *make* videos--laugh-in style news programs, skits, scenes from plays, etc. It is even possible to have students communicate with video "pen pals", provided the pen pal lives in a country which has a compatible television system. If the countries involved do not have compatible television systems, it is possible to buy a multi-standard VCR which will handle tapes from two different systems. For a small number of tapes, an alternative is to have a tape converted from one system-type to another. The cost of the conversion is relatively high, but it is possible to have this done. Individual students can have video pen pals or class groups can exchange videos. This is also a way of encouraging students to work out their own summer exchanges.[8]

4. *Teacher-produced video for documentation*

Literally anyone with a camera can become an audio/video production person. A teacher could tape a guest speaker, for example, if it were not possible for the person to make a presentation to the class (being careful, of course, to obtain the speaker's permission in advance of taping). The class could then hear from someone with whom it might not otherwise be possible to have contact. If the presentation and the tape turn out well, the teacher could show it many different times and places. Over time, the teacher could build up a file of such tapes. It would be advisable to secure written permissions (or releases) from those who appear on the tapes and to keep them on file, to avoid the possibility of any future misunderstandings as the tapes are used. Teachers can also document class projects as they develop and show the tape later to students, parents, or teachers. Again, this is a way of providing first-hand information to people who simply wouldn't have it if the video camera and VCR didn't exist.

How Will This New Video Technology Affect the Presentation of the Language and the Culture in the Classroom?

Because there is a lot of material to choose from, and because it is relatively inexpensive, teachers will have more control over the choice of A-V material than in the past and will be able to update their selection more frequently. Video technology will help teachers to personalize their representation of the culture, through individuals, and provide more and better listening practice. It will enable students to see connections between language and other content areas that they might have missed if their teacher had not had access to such a vast array of materials. It will allow students to share information with people with whom they might not otherwise have been able to come in contact--video pen pals, guest speakers, etc. Finally, when they begin to put together their own productions, it will allow teachers and students to use video as an active medium for language learning and to make maximum use of this technology as a learning tool.

Will This Use of Video Take Hold Quickly?

In many school systems, the equipment is in place, or will be shortly. But using video well will require effort on the part of teachers. There must be a systematic effort to review videotapes in order to find the ones that are worthwhile. Once good material has been found, teachers should make some sort of viewing guide, and put time and thought into the way the tape will be used. Teachers should learn to use the video camera or camcorder so that they can make their own tapes. Once they have some experience operating the equipment, teachers must take time out to schedule the interviews, edit their tapes, etc.

How Valuable Is This Use of Video?

The use of videotapes can enhance classroom instruction, but never replace it. In using videotapes as in anything else, the teacher must follow sound pedagogical principles. However, well-used video material can make a significant difference in teachers' presentations of the culture and the language--enlivening it, personalizing it, and injecting elements of communication and information. It can help to move students along the path to natural, spontaneous use of the language.

Author Information

Ingrid Berdahl is a French teacher at Wakefield High School in Arlington, VA.

Note on Series

This information sheet is part of a series on materials and programs for second language education prepared under the auspices of the Center for Language Education and Research (CLEAR). For futher information, contact:

CLEAR
Center for Applied Linguistics
1118 22nd St., N.W.
Washington, DC 20037

ENDNOTES

[1]Consult the "Guidelines for Off-Air Recording of Broadcasting Programming for Educational Purposes" or the "Fair Use" Exclusions for Educational Institutions, U.S. Copyright Law, 1979.

[2]Elizabeth Joiner, University of South Carolina. 1986 Northeast Conference on the Teaching of Foreign Languages, Washington, D.C. Presentation on the role of listening in language acquisition.

[3]"La Télé des Français." France Media International, Université de Paris - Dauphine and Middlebury College. Middlebury College Language Schools, Middlebury, VT 05753. Telephone 802-388-3711, ext. 3685. A series of 3 video cassettes, each 2 hours long, with teaching guides.

[4]JoAnn Crandall and Karen Willetts "Content-based language instruction." *ERIC/CLL News Bulletin*, 9(2), March 1986. Available from CAL, 1118 22nd St., N.W., Washington, DC 20037.

[5]The Television Licensing Center, a division of Films Incorporated, offers educators a legal and convenient mechanism for acquiring the rights to educational television programs as they are being broadcast. Call 1-800-323-4222 to receive an information packet.

[6]From the Survival Wildlife Series, Survival Anglia Products.

[7]*The Story of English*. McNeil-Lehrer-Gannett Productions/BBC, 1986. This nine program series details the history of the English language and provides a unique focus on current English usage world wide. Available from Films Incorporated, 5547 N. Ravenswood, Chicago, IL 60640-9979, Telephone 800-323-4222. Also distributes BBC foreign language series including French, German, Italian, Mandarin, and Spanish videos.

[8]Lois Vines, Ohio University. American Association of Teachers of French (AATF). "French and American Teacher's Alliance: Creating Communication Lines." *National Bulletin*, May 1987.

Resources

American Association of Teachers of French (AATF). (1986). "Video Cassettes in French: A Guide to Sources". *National Bulletin, 12*(1). Provides addresses and annotations of French language videos.

Brumfit, C. (Ed.). (1983). *Video Application in Language Teaching*. Oxford: Pergamon Press.

ERIC Clearinghouse on Languages and Linguistics. 1118 22nd St., N.W., Washington, DC 20037. Telephone 202-429-9292. Computer search and Printout #449, *TV and Videotapes in Second Language Learning*. An annotated bibliography of articles for further reading.

International Film Bureau, Inc. 332 South Michigan Avenue, Chicago, IL 60604-4382. Telephone 312-427-4545. Collection includes films on francophone Africa, and African food and wine series.

Lonergan, Jack. 1984. *Video in Language Teaching*. Cambridge University Press: Cambridge.

Northeast Conference Films, P.O. Box 623, Middlebury, VT 05753. Telephone 802-388-4017. A number of foreign feature films in several languages.

Project for International Communication Studies. 405 Jefferson Building, University of Iowa, Iowa City, IA 52242. Telephone 319-353-8554. Distributes news programs and other series from foreign television, including telejournal, broadcasts from France, Spain, Germany, and Italy in cooperation with the BBC. Ancillary materials available.

Tanner, Jacquelyn. (1983). A Video Review. *NALLD Journal, 17*(3-4). An annotated bibliography of publishers and addresses for foreign languages, including video sources from satellites and PAL/SECAM transfers.

STRATEGIES FOR INTEGRATING LANGUAGE AND CONTENT INSTRUCTION
ART, MUSIC, AND PHYSICAL EDUCATION

Carolyn Andrade, Carol Ann Pesola and Donna Christian

Purpose

A major difficulty in teaching language to beginners is how to get started and how to facilitate the early stages of language learning. The use of physical response strategies can be an effective way to approach this problem, particularly in immersion settings. In this technique, teachers use only the target language, and students are expected to respond physically, but not verbally. In other words, students demonstrate understanding through means other than oral production. The approach shares its conceptual underpinnings with those of the "total physical response (TPR)" and "natural" approaches.

The physical response orientation has a number of advantages for early language learning. It involves processes that resemble natural language acquisition, by developing comprehension and involving action responses and it reduces the level of anxiety in the new language situation. In the classroom, the approach further has the advantage of pairing mental processing with action, which may lead to greater retention, and all students are able to participate. For young children, this involvement orientation is especially important, as is the fact that no reading or writing skills are required (although they may be developed).

Integrating language and content instruction using physical response strategies can be particularly effective in art, music and physical education classes. Concepts appropriate to the age levels of students can be taught, and the content lends itself well to physical rather than verbal responses from the students. The teacher's language can be geared, in variety and complexity, to the language level of the students, while still allowing the teacher to promote concept learning.

The following activities suggest ways in which physical response activities can facilitate the learning of language and basic concepts in music, art, and physical education. The lessons are designed for beginning language learners (in a foreign language or ESL context) in various elementary grades.

The Basic Approach

Step 1: Planning

- set language and content goals for the lesson
- determine the vocabulary needed for the lesson
- break down the lesson/task into steps

  teacher: language + gestures + context
  student: physical responses

- define sequence of activities
- identify and gather materials needed

Step 2: Conducting the lesson

- Teach vocabulary using visuals, movement and demonstration; use familiar commands (*put, take*, etc.) and allow for lots of manipulation of vocabulary through novel commands (new combinations of familiar command structures with new vocabulary).

- Introduce and practice concepts through sequenced activities, with teacher using language, gesture and demonstrations, and students responding with action, first as a group and then in smaller groups or individually.

- Combine and reinforce concepts, continue practice.

Step 3: Ending the lesson
- End with a quiet activity to calm students down before the next class; because of the active nature of this approach, it is important to provide the students with a "cool-down" or quiet time before moving on to the next activity; a good example is a short story (told orally or read).

Sample Lessons

I. Physical Education
Objective: motor skills development, sequencing actions
Language level: beginning (foreign language or ESL)
Educational level: primary
Materials needed: music from the culture whose language is being studied (optional for accompaniment to activities)
Activities:
Note: These activities are not intended to constitute a single lesson; the inventory of actions should be built up over time, introducing no more than three actions and two modifiers at a time. As the list of known actions builds, new and old responses should be practiced together.

1. Setting the stage: demonstrate/teach vocabulary
   a. action verbs (*jump, skip, hop, run, walk, stop*, etc.)
   b. modifiers (*left, right, fast, slow, high, low*, etc.)
   c. numbers 1 to 10

2. Demonstrate actions and have children practice each action as a group.

stand up	run	stop
walk forward	jump high	run in a circle
hop 3 times	skip to the left	etc.

3. Give a series of 2 or 3 commands and have children carry them out, as a group and individually.
   jump 2 times and skip to the door
   hop to the teacher and squat down
   run to the door, hop 3 times and walk to the window
   stand up, jump 2 times and sit down, etc.

4. When the inventory of known actions is long enough, play a game. Issue commands and have the students do the actions. When a mistake is made, in action or in number of times, etc., the student must sit down. Start with single commands and gradually increase the number of commands in the sequence. Those children sitting down may participate by monitoring the performance of those still standing.

II. Art
Objective: basic shapes and colors (making a mobile)
Language level: beginning (ESL or foreign language)
Educational level: elementary
Materials needed: colored paper in at least five colors, objects to trace basic shapes (rectangle, square, circle, triangle), pencils, scissors, string, wooden sticks (approximately 18-24 inches long)

Activities:
1. Setting the stage: demonstrate/teach vocabulary
   a. action verbs: *put, take, cut, draw, make, find*
   b. colors: *red, blue, yellow, green, black, white*
   c. shapes: *square, rectangle, circle, triangle*

2. Demonstrate tracing shapes and cutting them from paper of different colors. Have children cut out pieces of various shapes in various colors.
   Find a circle; draw a circle on the red paper; cut out the circle.
   Make a square on the blue paper; cut it out.
   Put the box (rectangle) on the yellow paper; draw the rectangle; cut out the rectangle.
   Make a green triangle.
   Then let children cut out shapes and colors as they choose.

3. Once children have a number of shapes cut out, practice sorting and naming the shapes and colors. Get children moving around as they sort.
   Put all the triangles together. Who has a red triangle? If you have a red triangle, stand up. Put all the red triangles on the table and sit down.
   Who has a black rectangle? Put the black rectangle by the window.
   Put all the blue pieces together. Take the blue squares to the blackboard.
   Continue sorting, then redistribute shapes so that each child has at least 2 of each shape in different colors.

4. Demonstrate glueing strings of different lengths to shapes and tying them to the wooden sticks, more or less evenly spaced. Allow children time to design arrangements of shapes to their liking. With older children, two sticks may be crossed and nailed together to make a more complex mobile.

5. Hang children's work around room and use at later times to practice shapes and colors in follow-up activities.

III. Music
Objective: note values
Language level: beginner (foreign language or ESL)
Educational level: 2nd grade and above
Materials needed: large versions of notes (quarter (8), half (4), and whole notes (2)) for demonstration; equivalent set of notes for each student to work with; flannel boards or other way to put notes up for display and rearrangement
Activities:
1. Setting the stage: demonstrate/teach vocabulary
   a. numbers
   b. names of note values
   c. action verbs: *clap*, *tap*, *step*, *sing*, *jump*

2. Hold up the appropriate note and have the students follow commands using the notes they have.
   Point to the whole note, the half note, etc.
   Put the whole note on the table and clap 4 times.
   Put the half note on the floor and clap 2 times.
   Put the quarter note on your head and clap one time.
   Cover your left eye with the whole note and wink 4 times, etc.

3. Compare values of notes. Hold up whole note, two half notes and four quarter notes, as equivalents. Practice tapping 4 times for a whole note, 2 times for each half note and 1 time for each quarter note. Hold up combinations of notes and have students hold up equivalents, while they tap them out. Encourage innovative combinations.
   For example: Hold up a whole note and a half note; have students tap them out (6 taps); have students find equivalents and tap them out (3 half notes, 6 quarter notes, etc.); continue this practice until students know the values.

4. Practice sequences of notes. Using large demonstration notes, combine whole, half and quarter notes into series and have students tap them out. For example, place 3 quarter notes, a whole note and a half note in a row and have students tap or clap 1 time for each quarter note, 4 times for the whole note and 2 times for the half note. Practice a few sequences.

5. Ask students to work in pairs or small groups to pool their notes and put together a series of notes for the class. Come back together and tap/clap out the sequences proposed by each group/pair.

Variations

All of these activities can be adapted for older students by adjusting the actions or context.

Resources

Asher, J. (1982). *Learning another language through actions. The complete teacher's guidebook* (2nd edition). Los Gatos, CA: Sky Oaks Productions.

Krashen, S., and Terrell, T. (1983). *The natural approach.* San Francisco, CA: Alemany Press.

Author Information

Carolyn Andrade is Foreign Language Supervisor for the Cincinnati Public Schools.

Carol Ann Pesola is Assistant Professor of Education and German at Concordia College in St. Paul, Minnesota.

Donna Christian is Director of Research at the Center for Applied Linguistics.

Note About Series

This strategy sheet is one of a series of products prepared by participants in a seminar on Methods of Integrating Language and Content Instruction held at the Center for Applied Linguistics in January 1987. The support of the Department of Education through the Center for Language Education and Research and the Ford Foundation is gratefully acknowledged. For more information, contact:

Center for Language Education and Research (CLEAR)
Center for Applied Linguistics
1118 22nd St., N.W.
Washington, DC 20037

STRATEGIES FOR INTEGRATING LANGUAGE AND CONTENT INSTRUCTION SCIENCE

Patricia Chamberlain, Mary Ellen Quinn, and George Spanos

Purpose

This strategy can be used to integrate language and content instruction in science classes with a laboratory focus. The approach takes standard laboratory experiments and integrates language learning. The following activity illustrates the implementation of the strategy at the primary school level for the specific scientific concept: "Air has pressure because it weighs something."

Materials

The materials necessary for this experiment are:

water	pencils and paper
towels	medium size glasses (glass or plastic - styrofoam doesn't work)
pans or sinks	stiff cards of various sizes, e.g., index cards

The Basic Approach

For students at *beginning proficiency levels*, conduct the following experiment (Steps 1-7). The steps for the basic experiment are appropriate at the elementary school level. The primary cognitive focus is observation, which can be expressed linguistically through simple unstructured discussion and/or note-taking activities, and by asking yes-no questions or giving imperatives.

Step 1: Write on the board and state orally: Air has pressure because it weighs something.
Step 2: Put water in the glass until it comes to the top.
Step 3: Push the card over the top of the glass.
Step 4: Hold your hand over the card. Turn the glass of water upside down. Be sure to leave your hand on the card.
Step 5: Remove hand and ask students to comment on what they have observed, eliciting relevant vocabulary and concepts.
Step 6: Divide class into small groups (2-3 students each). Each group is asked to re-enact the experiment, keeping a record of when it does and doesn't work.
Step 7: Re-convene class and have group members relate results.

Extensions

The instructor may want to incorporate some higher level cognitive foci at the *intermediate proficiency level.* In that case, the following steps may be added to the basic experiment.

4b. Ask them to predict what will happen.
6b. Tell groups to record results on a prepared form which classifies what happens under different conditions. For example:

- glass not filled to the top with water _____
- card not large enough to fit over rim _____
- hand removed too quickly _____
- card not stiff enough _____
- glass made of styrofoam _____

7b. Ask students to relate what happened under the varying conditions and to provide an explanation.

At the *advanced proficiency level*, the experiment can be expanded to include the following steps:
6c. Have each student write his/her own conclusion(s).
6d. Assign a group recorder the task of collecting all the conclusions, writing down, and reporting to the group the various conclusions. Students in each group then add hypotheses and conclusions.
7c. Have each group make a report to the class. This may be structured according to a standard report form.
7d. Collect written group reports and return them at a later date with comments and perhaps allow for further discussion.

Variations

A related activity would be to take an empty clear glass, turn it upside down and push it down into a pan of water. Demonstrate that the water doesn't go into the glass (or only slightly), because air pressure prevents it. Use similar steps as above, eliciting verbal responses and explanations from the students at the appropriate level of proficiency. Variations will, of course, depend upon whether the class is an ESL class or a mainstream class, as well as upon the nature of the specific experiment being used.

Other Uses

This same strategy can be used for the secondary and tertiary levels (see Table below). The *language foci* may be altered to include more sophisticated activities such as library work, science reports and projects, mastering technical vocabulary, and so on. The same experiment can also include additional *cognitive foci* to develop more complex or higher order thinking skills, such as hypothesizing, synthesizing, and experimenting.

The following table summarizes how lessons can be created for different grades and proficiency levels through the implementation of language foci (lf) and cognitive foci (cf) for each grade/proficiency slot.

TABLE: TEACHING SCIENTIFIC CONCEPTS

	LOW	INTERMEDIATE	ADVANCED
Primary (4th-5th)	cf: observation lf: unstructured discussion, note-taking, yes-no questions, listening for main ideas	cf: explaining, inferring, predicting lf: structured discussion, structured note-taking, if-then (real), future tense, passives, adjective clauses	cf: hypothesizing, synthesizing, experimenting lf: structured group work, structured reports, if-then (real, unreal), quantifiers, modal verb phrases, noun clauses
Secondary (9th-10th)	cf: observation lf: unstructured vocabulary recognition, library work, illustrating conclusions	cf: explaining, inferring, predicting lf: pre-reading, guided reading, writing informal conclusions	cf: hypothesizing, synthesizing, experimenting lf: writing/expressing complete conclusions, completing standard reports, doing science projects
Tertiary	cf: observation lf: mastery of key vocabulary	cf: explaining, inferring, predicting lf: mastery of technical vocabulary, technical reading, lecture and note-taking skills	cf: hypothesizing, synthesizing, experimenting lf: synthesizing lectures in writing, using science journals, writing technical reports

Author Information

Patricia Chamberlain is a teacher trainer at the Illinois Resource Center. She has been involved in developing content area curriculum for limited English proficient students as a teacher, a consultant and a college instructor.

Mary Ellen Quinn is a classroom teacher of science and ESL as well as a researcher and author of materials pertaining to the integration of science and language learning.

George Spanos is a researcher and curriculum developer at the Center for Applied Linguistics.

Note about Series

This strategy sheet is one of a series of products prepared by participants in a seminar on Methods of Integrating Language and Content Instruction, held at the Center for Applied Linguistics in January 1987. The support of the Department of Education through the Center for Language Education and Research and the Ford Foundation is gratefully acknowledged. For more information, contact:

CLEAR, Center for Applied Linguistics
1118 22nd St., N.W.
Washington, DC 20037

STRATEGIES FOR INTEGRATING LANGUAGE AND CONTENT INSTRUCTION
SOCIAL STUDIES

Melissa King, Stephen Matthiesen, and Joseph Bellino

Purpose

This strategy uses visual representations known as "semantic webs" to portray the relationships among various components of a content domain under discussion. Presentation of content via semantic webs helps students develop the skills of organizing information and comparing/contrasting information as related to key concepts. At the same time, language development occurs, through:

- vocabulary development
- practice in clarifying and describing relationships

Language Level
Intermediate to advanced

Educational Level
Grade one or higher

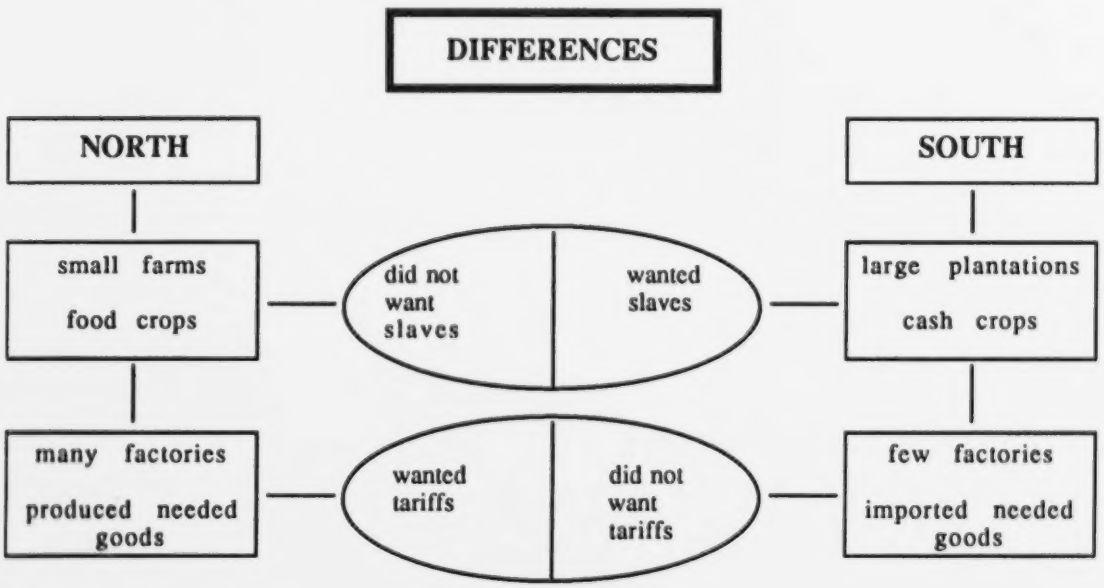
Materials
Paper and pencil
Ruler
Templates with shapes/configurations (optional)

The Basic Approach

This strategy entails the use of a visual scheme to represent relationships among important events, people or other historical facts and concepts; for example, the following content focus can be considered:

> DIFFERENCES between the North and the South led to disagreement over socio-economic policies and eventually led to the secession of the Confederate states.

Step 1:
- Review the unit to be studied and identify key concept(s).
- Determine important relationship(s) in the unit and list the target vocabulary.
- Sketch a visual diagram to represent this information, as shown below.
- Assign students a unit to read.



Step 2: - Present this semantic web to students.
- Encourage student discussion of content and concepts represented.
- Ask questions like
  What states are in the North? in the South?
  Where are there small farms? large plantations?
  What are crops? goods? tariffs?
  Who wanted slaves but did not want tariffs?
- If appropriate to student level, ask them to generate sentences and/or a paragraph to explain relationships illustrated in the web, or to read a related text.

Step 3: - Ask for elaboration of ideas represented in web. For example, ask students which major differences between the North and South led to war.
- If a related reading has been assigned, present a blank web or one with gaps and ask students in groups to fill in details based on this reading.

Other Uses

This strategy could easily be adapted to other social studies units as well as other content area subjects. It can serve as a prereading as well as a review activity. This strategy is excellent for developing pros and cons, for clarification, and for analysis of paragraphs into major ideas and supporting ideas.

Author Information

Melissa King is an ESL teacher in Arlington County (VA) Schools.
Steve Matthiesen is an ESL teacher in Prince George's County (MD) Schools.
Joseph Bellino is a resource teacher in Montgomery County (MD) Schools.

Note about Series

This strategy sheet is one of a series of products prepared by participants in a seminar on Methods of Integrating Language and Content Instruction, held at the Center for Applied Linguistics in January 1987. The support of the Department of Education through the Center for Language Education and Research and the Ford Foundation is gratefully acknowledged. For more information, contact:

CLEAR
Center for Applied Linguistics
1118 22nd Street, N.W.
Washington, DC 20037

STRATEGIES FOR INTEGRATING LANGUAGE AND CONTENT INSTRUCTION SOCIAL STUDIES

Melissa King, Stephen Matthiesen, and Joseph Bellino

Purpose

This strategy introduces and reviews important events, people, dates and concepts in the social studies content area using color-coded sentence strips. As constituents of sentences are manipulated, content information is presented and the following language foci are addressed:

- develop sentence structure and vocabulary
- review WH-questions
- promote oral language proficiency and the transition to reading/writing

Language Level
Beginning to Intermediate

Educational Level
Grade one or higher

Materials

Strips of colored paper and colored cards
Colored markers
Pocket chart (optional) for visual display
Magnetic tape (optional) for display of cards/sentences on magnetic chalkboard or thumbtacks for display on bulletin board.

The Basic Approach

This strategy involves the use of color-coded sentence strips to present content information and develop a variety of language skills.

Step 1: Prepare the following materials:

- color-coded sentence strips with content information which is to be focus of lesson(s)
- color-coded WH-question cards which correspond to specific sentence parts on the colored strips
- color-coded word cards which contain key words/phrases from the target sentences

Example:

Cortez	went from Cuba	to Mexico	in 1519	to look for gold.
blue	red	green	purple	orange

Who	from Where	Where	When	Why
blue	red	green	purple	orange

Alternate question cards:

What was his name?	What country was he from?	What place?
blue	red	green

What year?	What reason?
purple	orange

Step 2: Introduce content information on "World Explorers" to students by

a. breaking target sentences into constituent parts
   - build up sentence constituent by constituent
   - tape or tack strips to board as they are added
   - have students repeat or read constituents as they are added

b. eliciting appropriate responses to WH-questions about the content
   - ask questions about each constituent as it is added, then
   - review by asking basic questions and alternate forms after complete sentence developed

c. eliciting appropriate WH-questions to correspond with given content information
   - point to the answer and have students supply the question

d. distributing question cards and word cards to students for physical response drills
   - Have student with question card stand up and ask, then student with appropriate answer stand up and answer

e. distributing word cards to students so they can reconstruct target sentences by standing up in correct order.

Step 3: Encourage student-student interaction with color-coded cards and sentence strips. Have students pair up to practice with each other.

Step 4: Move from oral practice into writing activities:

a. have students write appropriate content information or WH-question following an oral cue;
b. have students write target sentences when given a word or phrase as an oral stimulus; and
c. have students create new sentences (following the structural pattern) when given additional content information.

Extension

Model other similar sentences for an oral and/or written review.
For example:

1. Cabot went from England to the east coast in 1497 to find a trade route.
2. Cartier went from France to Canada in 1534 to find a trade route.
   Ask questions: who? what country? where? when? why?

Other Uses

This strategy could be easily adapted to other social studies units as well as other content area subjects.

Author Information

Melissa King is an ESL teacher in Arlington County (VA) Schools.
Steve Matthiesen is an ESL teacher in Prince George's County (MD) Schools.
Joseph Bellino is a resource teacher in Montgomery County (MD) Schools.

Note about Series

This strategy sheet is one of a series of products prepared by participants in a seminar on Methods of Integrating Language and Content Instruction, held at the Center for Applied Linguistics in January 1987. The support of the Department of Education through the Center for Language Education and Research and the Ford Foundation is gratefully acknowledged. For more information, contact:

CLEAR, Center for Applied Linguistics
1118 22nd St., N.W., Washington, DC 20037

STRATEGIES FOR INTEGRATING LANGUAGE AND CONTENT INSTRUCTION MATHEMATICS

Gilbert J. Cuevas, Theresa Corasaniti Dale, Richard Tokar, Gina Richardson and Karen Willetts

Purpose

The set of activities presented below is a sample of how mathematical concepts and skills can be integrated into language learning so that students learn the academic language necessary for mathematics instruction.

The activities presented here deal with the mathematical topic IDENTIFYING GEOMETRIC SHAPES AND THEIR ATTRIBUTES. The activities are arranged from simple to more complex tasks both in terms of content and language proficiency. Thus, although they are grouped for age-grade appropriateness, they are also grouped according to low, intermediate, and advanced language proficiency levels. Each activity in the series builds on the previous one and can be adapted for students in the various grades according to language proficiency.

Grades 1-2 (novice)
content focus: identifying shapes
language focus: labeling shapes

Materials

A class set of attribute blocks, or sets of cardboard shapes that differ by size, color, and shape

The Basic Approach

1. Divide students into small groups, each with a set of attribute blocks or cardboard shapes. Ask students to divide the blocks into 3 groups. (Students should discover on their own that the attributes are color, shape, size).
2. Leave each student with a set of blocks that differ only in shape (not in color or size). Name the shapes: "This is a circle. What is this?" Have the students answer until they learn the names of the various shapes. "This is a ____."
3. Provide additional practice by giving simple commands: "Put the square on your head. Hold the triangle in your left hand."

Extensions and Variations

1. Provide written labels on cards. Have the students match attribute blocks to word cards. Students can work in pairs.
2. Have students write the word for each shape that their partner shows them.
3. Have students practice with worksheets which require them to draw or label shapes: Draw a red circle. Label the ▭.

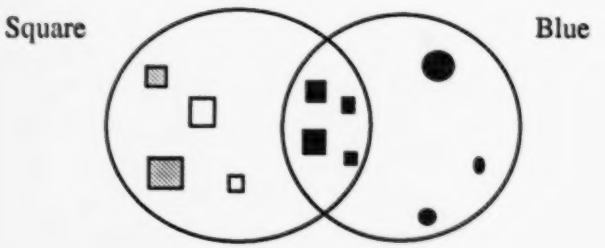
Grades 3-6(low intermediate)
content focus: identifying common attributes through set intersection
language focus: describing, giving reasons

Materials

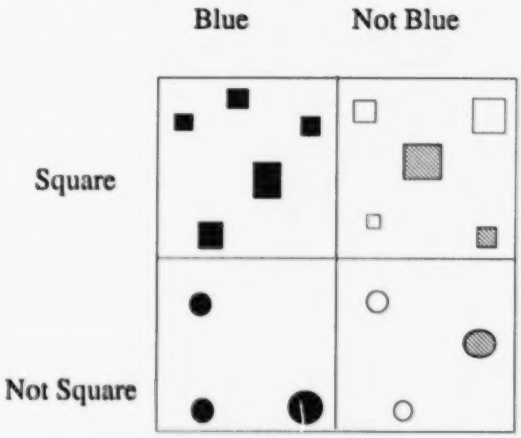
Sets of attribute blocks or cardboard shapes
Flannelgraph with construction paper shapes

The Basic Approach

1. Divide students into small groups. Have the students divide their set of attribute blocks into two groups, e.g. all shapes that are squares and all shapes that are blue. Illustrate what they have found on the flannelgraph.
2. Ask students if some of the blocks could belong to both groups or sets, e.g. the squares that are blue. "Are there some blocks that can belong to both sets? What are they? Why can they belong to the first set? to the second set?"
3. Explain the meaning of mathematical terms such as set, intersection, and complement. Have students give their reasons for the intersection of the sets, e.g. "Because these are squares and they are blue."
4. Ask students other questions about the elements of the sets. How many yellow elements are there in the complement? What squares are not in the intersection?"
5. Illustrate the intersection of the two sets with a Venn Diagram or a Carroll Diagram.



Venn Diagram



Carroll Diagram

Extensions and Variations

1. Have students make attribute chains with a set of blocks. For example: "Put a small blue circle on the table. Find a shape that is different in only one way." Have the student put his/her choice next to the blue circle, e.g. a small red circle. Have the other students state whether they agree that this choice is one different or not. "Yes, because they are both small circles; the only difference is color." Continue the chain, with students providing reasons for their choices.
2. Then change the chain pattern to two different (eg. medium red triangle, then a small blue triangle), and finally three different (eg. small yellow circle, then a big red square). In each case have students provide the reasons for various sequences of shapes: eg. "The second element matches the first in color and shape; the third matches the second in shape and size," etc. This activity can become a game for small groups, and students may try to "trick" each other by putting down a wrong block to get rid of theirs first or by giving a wrong reason.

Grades 7-8 (high intermediate)
content focus: graphing shapes
language focus: giving and following directions

Materials

graph paper, ruler for connecting points

The Basic Approach

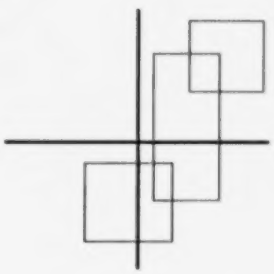
1. Have students work in pairs. Each student faces his partner, with a stack of books or other barrier between them.

The first student is given a shape(s) made by connecting points on a graph; s/he must give directions to the second student such that s/he may reproduce the design(s) on his/her own graph. "Draw points at coordinates (2,1), at (5,1), at (2,4), and (5,4). Connect coordinate (2,1) with coordinate (5,1)," etc. Have students compare their graphings to see if instructions were given/followed correctly. (See diagram on the next page.)

2. Partners then switch tasks, working with a new graph.
3. The task may be written as well. Have one student write the instructions for the others to follow.

Extensions and Variations

To encourage precision in giving and following instructions, use graphed shapes in increasingly complex configurations; for example, a design of overlapping shapes.
Example:



Grades 9-12(advanced)
content focus: classification of shapes by attribute
language focus: stating mathematical definitions

Materials

representations or illustrations of shapes

The Basic Approach

1. Display familiar shapes--square, triangle, rectangle. Have students identify relevant criteria for describing geometric shapes (number of sides, relative length or position of sides, measurement of angles, etc.).
2. Provide students with an example of a definition for geometric shapes and have them discover the constituents necessary for an accurate definition.
3. Give illustrations of definitions which provide too little or too much information and have students explain what is/isn't needed.
4. Work with class to arrive at various mathematical definitions: "A square is a geometric shape having four equal sides and four right angles."

Extensions and Variations

Display and identify unfamiliar shapes. Have students provide definitions, e.g. pentagon, rhombus, parallelogram, trapezoid, etc. Have students divide shapes into families and define the characteristics of each group.

Working with Students at Different Proficiency Levels

Language and mathematics teachers who want to use classroom activities that integrate language and mathematics skills will realize that they need to know something about their students' level of skill/knowledge in both mathematics and the language being used for the lesson. (It is assumed that the language used is the students' second language, either English or another second or foreign language.) Specific instruments for diagnosing students math skills and language proficiency (particularly reading in L2) will not be treated here. Math and language teachers will have to use their expertise in their respective disciplines to help each other dwetermine each students' skills level in math and in language. However, it might be helpful to think of students as falling into the following four broad categories, as outlined in the figure below.

MATH SKILLS	LANGUAGE SKILLS: LOW	LANGUAGE SKILLS: HIGH
HIGH	Students have near-grade level math skills, but a low proficiency in L2. Example: New arrivals to the U.S. who have studied math at grade level in L1 in their native countries. Also, students in lower level FL classes who are at least fair students of math but beginning students of the L2. These students need to learn and practice the language needed for doing math in L2.	Students have strong math skills and high level of proficiency in L2. They should be able to follow regular math curricula in L2. Example: "Graduates" of advanced levels of ESL or of FL immersion programs who also are working at or above grade level in math. These students can review these activities either to reinforce the math concepts or for extra language practice.
LOW	Students who have weak math skills even in L1 and have low proficiency in L2. Example: New arrivals to the U.S. who had little or no schooling (or interrupted schooling) in their native countries and who have little or no proficiency in English (their L2). These students need intensive help simultaneously (especially in the upper grades) in both math and the L2.	Students have weak skills in math but apparently adequate skills in L2. Example: A non-native English who learned English in the first years of school in the U.S. This student speaks English well but probably is underachieving in both reading and math. Also, a student in a FL immersion program who is proficient in L2 but is having trouble in math in L1, L2, or both. These students' math difficulties might partially stem from problems with the language of mathematics. Math/language activities such as the ones suggested here might be a new way to address their problems.

Author Information

Gilbert Cuevas is a teacher-trainer and Professor of mathematics and computer education at the University of Miami, Coral Gables (FL).

Theresa Corasaniti Dale is a teacher-trainer and researcher at the Center for Applied Linguistics.

Richard Tokar is a math teacher at Dr. Sun-Yat-Sen Intermediate School in New York City.

Gina Richardson is a researcher at the Center for Applied Linguistics.

Karen Willetts is a researcher at the Center for Applied Linguistics.

Note about Series

This strategy sheet is one of a series of products prepared by participants in a seminar on Methods of Integrating Language and Content Instruction, held at the Center for Applied Linguistics in January 1987. The support of the Department of Education through the Center for Language Education and Research and the Ford Foundation is gratefully acknowledged. For more information, contact:

CLEAR, Center for Applied Linguistics
1118 22nd St., N.W.
Washington, DC 20037

Center for Language Education and Research....Center for Applied Linguistics
1118 22nd St., NW, Washington, DC 20037

A National Profile of Foreign Language Instruction at the Elementary and Secondary School Levels 1987

SUMMARY

The role of foreign language education in our schools has been under close public scrutiny during the last decade. Various education commissions, policy groups, states, and local school districts have recommended ways to enhance the teaching of foreign languages in elementary and secondary schools.

The Center for Language Education and Research (CLEAR), through funding from the U.S. Department of Education, sought to address the issue of the status of foreign language instruction by conducting an in-depth, national survey of elementary and secondary schools. This report analyzes the results of questionnaires completed by principals and foreign language teachers at 1,416 elementary schools and 1,349 secondary schools (an overall 52% response rate). The respondents represented public and private schools, ranging from nursery school through grade 12, throughout the 50 states and the District of Columbia.

RESULTS

Whether Schools Teach Foreign Languages

One fifth (22%) of the elementary schools and 87% of the secondary schools reported teaching foreign languages. See Figures 1 and 2. Many schools not currently teaching foreign languages said they were interested in doing so.

Student Enrollment in Foreign Language Courses

Approximately 42% of elementary schools offering foreign languages reported that *at least half* of their students were enrolled in foreign language classes, as compared with 23% of the secondary schools offering foreign languages. Private schools reported having higher proportions of their students enrolled in foreign language classes than did public schools.

Languages Taught

The top four languages taught in elementary schools with foreign language programs were Spanish, French, Latin, and German, offered by 68%, 41%, 12%, and 10% of the schools, respectively. Among the secondary schools with foreign language programs, the top four languages taught were Spanish (86% of the schools), French (66%), German (28%), and Latin (20%). Private schools at both elementary and secondary levels tended to be the ones to offer the less commonly taught languages, such as Russian, Italian, Hebrew, and Portuguese.

Program Types

Among the 22% of elementary schools that offered foreign language study, the vast majority (86%) of them provided programs aimed at various kinds of introductory exposure to the language, while only 14% offered programs having fluency or communicative competence as one of their goals. This means that only 3% of all U.S. elementary schools offered programs in which the students were likely to attain some degree of communicative competence in foreign languages.

Among the 87% of secondary schools that offered foreign languages, 96% of them reported providing standard foreign language programs covering reading, writing, speaking, and listening skills. In addition to the regular programs, secondary schools also offered a variety of other programs, ranging from exploratory courses (20%), through advanced placement and honors courses (12%), to such courses as conversation (4%). More private secondary schools offered advanced placement and accelerated/honors foreign language courses than did public secondary schools.

Levels Offered and Hours per Week (Secondary schools only)

Secondary schools reported offering a wide range of levels ranging from Levels 1 to 6. Most languages were taught in a non-intensive mode, with secondary schools generally offering only one to five hours per week in most languages.

Scheduling Classes (Elementary schools only)

The vast majority (89%) of the the elementary schools that offered foreign languages made room for foreign language study during the regular school day.

Funding Sources (Elementary schools only)

The majority (69%) of elementary schools offering foreign languages mainly used regular school funds to cover salaries, materials, and expenses incurred by teachers.

Curriculum Guidelines

Most (64%) of the elementary schools that taught foreign language reported having an established foreign language curriculum or set of guidelines for their program. This figure rose to 85% at the secondary level.

The most frequently used types of foreign language teaching materials were teacher-made materials, commercially-published textbooks, audiovisual materials, and games (used respectively at 86%, 70%, 60%, and 38% of the elementary schools, and at 89%, 95%, 89%, and 60% of the secondary schools). Computer-assisted foreign language instruction was implemented at only 16% of the elementary schools and 20% of the secondary schools.

Student Activities

Secondary schools reported that their foreign language students participated in all types of foreign language activities at a much higher rate than foreign language students in elementary schools. For example, 64% of the secondary schools reported that at least some of their foreign language students went on local language-related field trips, compared with 31% of the elementary schools reporting such an activity for their foreign language students.

Sequencing

Sequencing of foreign language instruction from elementary to secondary levels was a real issue. Thirty-one percent of the elementary schools reported that because there was no planning ahead for their language students, those students who had studied foreign language in elementary school were placed in Level 1 classes along with students who had no prior contact with the language.

Although the majority of the secondary schools surveyed did not have students who had previously studied languages in elementary school, those that did either placed those students in Level 1 classes (17% of schools) or made other arrangements (26%).

Teacher Qualifications

As expected, secondary school foreign language teachers were more highly certified than elementary foreign language teachers. Eighty-one percent of the responding secondary schools said that all their foreign language teachers were certified to teach foreign languages at the secondary level, while only 26% of the responding elementary schools reported that all their teachers were certified for foreign langauge teaching at the elementary level. These results reflect the lack of available teacher training and certification programs geared toward the elementary foreign language teacher.

In-Service Training

Foreign language teachers at approximately half (53%) the elementary schools with foreign language programs had participated in some kind of staff development or in-service training during the past year, compared with foreign language teachers at 69% of the secondary schools.

Major Problems

The most cited problems in foreign language education across both elementary and secondary levels included funding shortages, teacher shortages, shortages of quality materials, lack of an established curriculum (elementary), inadequate sequencing, poor academic counseling (secondary), and inadequate in-service training.

CONCLUSION

The profile of foreign language instruction in the United States revealed by the survey shows that foreign language instruction is currently being offered in just over one-fifth of elementary schools and in 87% of secondary schools. Interest among school districts in starting instruction in the elementary grades is definitely increasing, as shown by a comparable survey conducted by the Center for Applied Linguistics in 1981.

It is evident that national attention needs to be focused on developing a more rigorous foreign language program, with instruction beginning in the early grades and continuing through high school until fluency is reached. Efforts to increase language learning in our schools and develop a language-competent society can be strengthened by (1) encouraging the establishment of new programs, particularly those that start in the elementary school and aim at a high degree of proficiency; (2) offering more intensive foreign language programs; (3) offering more programs that teach major world languages such as Russian and Japanese; (4) improving the sequencing patterns for those schools that already offer language classes in the early grades; and (5) addressing the major problems outlined by principals and teachers, including shortage of funding, lack of teachers, lack of quality materials, and inadequate in-service training.

This research was funded by the Office of Educational Research and Improvement, U.S. Department of Education, under contract #400-85-1010. The opinions expressed here do not necessarily reflect the positions or policies of OERI or ED.

For more information on the survey, write to: Nancy Rhodes and Rebecca Oxford, Center for Language Education and Research, Center for Applied Linguistics, 1118 22nd St., NW, Washington, DC 20037.

Figure 1: Percentage of Elementary Schools Teaching Foreign Languages
(Public, Private, and Total)

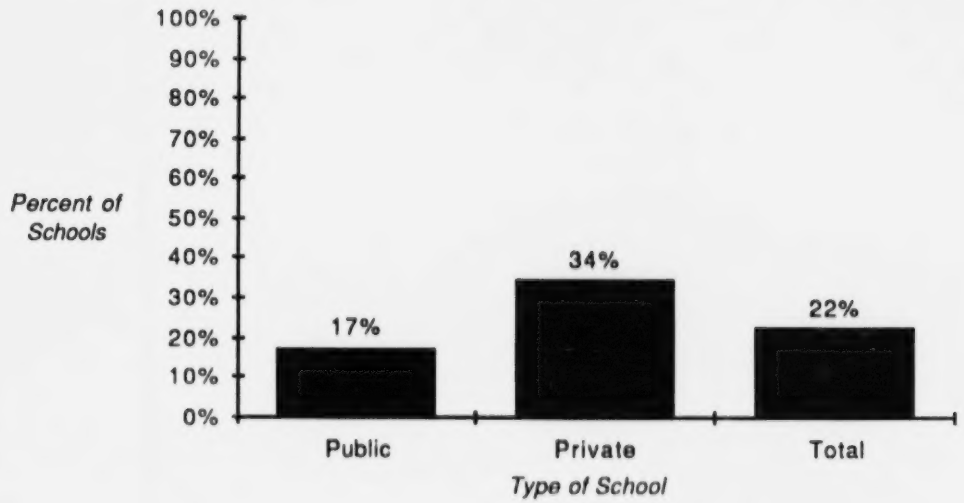


Figure 2: Percentage of Secondary Schools Teaching Foreign Languages
(Public, Private, and Total)